

In times of national and local emergencies, the Amateur Radio Service is a source of dedicated volunteers whose expertise and equipment provide alternative communication infrastructure when normal means are overloaded or incapacitated. This has been demonstrated time and again, during natural disasters and of course during the attacks on our country on September 11, 2001. Time and again, the Amateur Radio Service has been recognized as a valuable national resource, that must be protected.

I have been personally very active with our local ARES (Amateur Radio Emergency Service) and RACES (Radio Amateur Civil Emergency Service) over the last 12 years in Westchester County, New York, participating regularly in training exercises, and providing emergency communications services during Hurricane Floyd in 1999, and in the aftermath of the September 11, 2001 attacks.

During this time, I have been involved in providing voice communications on a variety of amateur bands, including medium to long distance SSB nets conducted in the 80 meter amateur band. These nets are intended to provide state-wide coordination between various county EOC's. This is only one example of how HF communications may be used in an emergency situation.

Much of my time in amateur radio is spend using low power radios, of typically less than 5 watts output, using SSB, CW, and digital modes. Using low power offers the advantage of portability, and allows extended operation with small portable power sources such as rechargeable batteries. While low power communications can be very effective, they are more susceptible to high levels of RF noise.

After reading about this technology (there is an excellent compilation of material available at <http://www.arrl.org/tis/info/HTML/plc>) I have become concerned that even the existing FCC Part 15 limits for this technology already can result in substantial interference potential to the amateur service, and shortwave broadcasting services as well. The web site referenced above cites numerous papers based on empirical evidence supporting this conclusion.

Another concern is the mode of deployment of PLC systems. Operating over a wide swath of the HF spectrum, that encompasses most licensed amateur allocations, and deployed across entire urban and suburban neighborhoods, there may truly be no place to escape high levels of noise in areas where PLC deployment is widespread. There is also evidence that HF noise produced by PLC systems may radiate beyond the local area of deployment, and affect far distant communications.

While PLC technology offers many attractive possibilities, the FCC has promised to protect licensed users of the spectrum. I urge you to proceed slowly and carefully with this technology, and remain mindful of that promise.

Thank you,
Michael Aiello, N2HTT

